ELECTRICAL WEST

Published by McGraw-Hill Company of California
San Francisco

Index to Volume 83

JULY-DECEMBER, 1939

Illustrated articles are designated by an asterisk (*), editorial by a dagger (†)

(Note: Owing to the method of pagination in this volume, it is necessary to use an abbreviation before the page number of each item to indicate the month in which it appeared.)

PAGES BY ISSUES

July **J1-60**
August **A1-76**
September **S1-76**
October **Oc1-84**
November **N1-68**
December **D1-72**

A

Advertising:
Advertising Successful in Load-building Programs, D32.
"Down with the Dictator" — Washington Water Power Co. Advertisement, Oc31.
General Electric Appliance Advertising Campaign, S46.
IES Lamp Advertisements, N38.
Modern Kitchen Bureau 1940 Theme, D37.
Unique Newspaper Promotion, Oc31.
Air Conditioning, Oc53.
Alameda Bureau of Electricity Withdraws from Direct Merchandising, A45
Albuquerque Rate Investigation Awaits Funds from City, D60
Allergy Electric Mask, A64.
Appliances:
"A Plea for Fewer Models," J45.
Appraisal Plans Progress in Portland, A39.
Background of Present-Day Appliance Sales, Oc37.
Color or Aluminum? for Heaters, N37.
"Consider the Electric Range," by Burdett Moody, *Oc29.
Jewelry Company Sells Appliances, Oc32.
Electrical League of Utah Sponsors Appliance Course, N37.
Refrigeration Discussion Forum at San Diego, J21.
Seattle Electric Range Sales, Oc32.
Small Appliances Are on Parade, D29.
"The ABC of Home Comfort," Oc32.
"Traffic-Getter" Displays Appliances, *Oc32.
"What Women Think About Appliances," by Shirley Douglass of Sunset, *N32.
Why Small Appliances Lag, Oc53.
"Wrap It Up"—La Jolla, Calif., A45.
Appliance Sales Guide:
The Electric Kitchen, *J25.
Washers and Ironers, *A41.
IES Lamps, *S41.
Light Conditioning, *Oc33.
Electrical Gifts, *N33.
Automatic Irons, *D33.
Appliance Sales Report: J24, A40, S40, Oc39, N38, D37.
Associations:
Agenda—Leagues and Clubs, N42.
Agenda—Western Electrical Men Gather in Various Associations, J43.
Annual Elections, J42.
Cavalcade of Conventions, A49.
Electrical Committee of Nat'l Fire Prevention Assn. Augmented, D41.
Electrical Industry Day at G.G.I.E., J43.
Electrical West Editor Attends Two Conventions—NECA and IAEL, D40.
Inspectors' Meeting, J42.
"Inspectors Vote Down Bare Neutral" at Meeting of I.A.E.I. S31.
International Assn. of Electrical Inspectors, Northwestern and Southwestern Sections in Joint Convention—S.F., A51.
Kee-Lo-Watt Tribe Holds Annual Pow-Wow, Oc54.
Managers of Leagues, Bureaus, Societies and Promotional Associations Meet, A51.
NEWA Meeting—Pacific Div. Hold June Convention at Del Monte, *J43.
NEWA Meeting—Pacific Division, N43.
Northwest Elec. Light & Power Assn. (Indexed under this title.)
Pacific Coast Electrical Association (Indexed under this title.)
Seattle AIEE Helps Young Electrical Engineers, D39.
The A.I.E.E. Comes West, *J30.
Western Radio & Appliance Trade Dinner—San Francisco, J43.

B

"The Bear Went Over the Mountain," D50.
"Biscuits Are Your Business," D49.
Bonneville:
Bonneville Activities, S64.
Bonneville Administration Active on Many Fronts, A64.
Bonneville Bids Awarded to Contractors, D56.
"Bonneville Into Its Proper Place," Oc27.
Bonneville Power Policies Favor PUD Independence, J48.
Bonneville to Survey Northwest Industry, D56.
Bonneville's Twin-Circuit Background, D22.
Cascade Locks First Bonneville Customer, A64.
"Electra's Husband's Reaction to Raver," Oc28.
First Contract for Bonneville Power Signed; Other News, N56.
Fly Named by Ickes as Acting General Bonneville Counsel, J54.
Forest Grove Signs First Bonneville Contract, D50.
FPC Approves New Bonneville Rates; Other Project News, Oc68.
1940 Bonneville Appropriation Totals $13,400,000, J54.
Wheeler Appointed New Bonneville Information Head, D53.
Books:
"Direct Current Machinery," by Hempstead S. Bull, J11.
"Industrial Electricity, Part 1," by Chester L. Dawes, Oc10.
"National Electric Rate Book," Published by Federal Power Commission, Oc10.
1939 Utility Charts, Compiled and Published by Robert A. Burrows, Oc10.
"Practical Electric Illumination and Signal Wiring Methods," by Terrell Croft, J11.
"The Diseases of Electrical Machinery," by G. W. Stubbings, J11.
Building Industry Solidarity, D48.
Bureau of Reclamation 1939 Appropriations Announced, J52.
Butte Co., Calif., Sues to Recover Municipal Funds, S61.

C

Campaigns:
Hotpoint—Electric Range Campaign, J24.
Idaho Power Co. "Twins for the Jones Family" Campaign, Oc32.
Idaho Power Co. "Watt's Up" Campaign, Oc32.
Mountain States Power Co. Carries on Complete Campaign, A45.
Pacific Gas & Electric Co.'s Campaign Theme "Electriliving," S46.
Puget Sound Power & Light Commercial Light Conditioning Campaign Winners, N38.
Refrigeration "Recipe Book" Campaign, S45.
Sales Campaigns on Home Lighting, D38.
Utah Power & Light Co. Conducts Co-operative Campaign, D32.
Capacitors:
"Capacitors Defer $135,000 Investment in Synchronous Unit," by J. F. Roberts, *Oc42.
"Capacitors Switched by Automatic Unit," by R. V. Sanford, *Oc40.
Central Valley:
California Assembly Defeats Revenue Bonds Assistance Bill, J52.
Woodbridge (Calif.) Grange Debate Publicly Owned Utilities, S61.
Contests:
Commercial Electric Cooking Council Contest, S47.
Electric Contest at Twin Falls, Idaho, Oc39.
Electric Cookery Observation Quiz, S45.
Hotpoint Kitchen-Planning Contest, D38.
"How Hot Is Hot?" Quiz Game, J24.
Kelvinator Sponsors "Hit the Line" Contest, Oc32.
"Pet Peeve Contest," J21.
Residential Xmas Lighting Contest in Salt Lake City, D44.
Thor Washer Contest, D38.
Contractors:
Albuquerque Electrical Contractors Assn. Sues Local Union, A62.
Contractors in Convention, Oc56.
Electrical Contractors Assn. of Northern California Holds Meeting, A51.
Electrical Contractors Convention, S35.
Seattle Electrical Contractors' Assn., Moves Into New Offices, D39.
Cooperative Movements:
Turnabout's Fair Play — Cooperation Between Wholesalers and Dealers, Oc53.

D

Distribution & Transmission:
"Big Transformers Dried in Portable Tank." (Transformers on So. Cal. Edison line.) *S28.
"Controller Facilitates Testing," by T. M. Blakeslee, *A34.
"Costs of Unit Substations," by F. D. Beardsley, N29.
"How Package Subs Are Used," by A. A. Shipek, *A30.
"Phase Relations in the Northwest," by Elmer F. Anderson. *A34.
"Reclosing OCB's vs. Repeating Fuses," by R. S. Daniels, *J32.

E

Easy Washer Dealers Hold Annual Sales Meeting, D66.
Edison G-E Appliance Co. Provides Greater Service to Blind Purchasers of Hotpoint Ranges, A45.
Electric Development League of Southern Calif.:
Electric Development League of Southern Calif.'s "Matchless Electric Home." D31.
Matchless Electric Home, J29.
E.D.L. of So. Calif., J20.
Electrical Organizations:
Electric Club of Washington Elects, N43.
EEI States Its Case, A49.
Electrical Dealers Learn About Light Conditioning, N43.
Electrical Organizations Meet to Discuss Current Phases of Industry, D41.
League Managers Meet, S38.
Pacific Coast Electrical Bureau Activities Cover Variety of Helpful Programs, N64.
Rocky Mountain Electrical League Holds Annual Convention at Estes Park, Colo., A51.
Rocky Mountain E. L. Pamphlets on Adequate Wiring, J40.
Trade Dinner—Western Radio and Appliance Men, A37.
Western Electrical Leagues Continue Constructive Activities, Oc55.
"Electrical West" Editors Cover Pacific West on Frequent Trips, Oc78.
Electra's Husband:
They're Called Salesmen, J14.
Work by Wire, A15.
Sillier Than the Pulps, S18.
Sherman Was Right, Oc22.
Peglerize the Language, N18.
Selling an Industry, D18.
Expositions, Shows:
B. C. Electric Railway Stage Spectacular Show at Vancouver, N37.
Electric Home Appliance Show in Eagle Rock, Calif., S45.
Farmers Like Their Fairs, D46.
Food and Home Appliance Exposition in Los Angeles, N37.
Fresno Dealers Make Display of Appliances at Fresno District Fair, N37.
Golden Gate International Exposition (See G.G.I.E.)
Idaho Home Show—Sponsored by the Electrical Equipment Sales Assn., *A39.
"Movable Kitchen," by Sydney W. Green, *S45.
National Homes Show in Salt Lake City, A24.
National Housing Exposition in Seattle, J38.
Northwest Home Show—Portland Oregonian Supplement, J22.
Radio Shows—Pac. Power & Light, J21.

F

Fairs:
(See Expositions.)
Federal Power Commission:
Proposed Bridge Canyon Project, J51.
San Diego Consolidated Gas & Elec. Co. to Export Electric Energy to Mexico, A64.
So. Calif. Edison Files Application, A64.
Federal Power Program:
"A Poor Excuse," J44.
"Wise Chinaman," J44
"In Contracting Too," J45.

G

Gamble-Scogno in Colorado Ordered to Pay Chain Store Tax, A61.

General Electric Company:
General Electric Makes Personnel Changes in Pacific District, S74, S72.
"Mrs. Cinderella," S47
Salt Lake G. E. Modernizes Headquarters, J57.
Generation:
A Dozen Duties for the Generator Set, D27.
"Automatic Start" for Large Hydro Machines, by A. F. Ayres, N28.
Gas Turbines Come of Age, A36.
"Hydro Maintenance," by C. P. Rhine, Part I, S29.
"Hydro Maintenance," by C. P. Rhine, Part II, *Oc43.
"Machine Protection and the Practice of Grounding Neutrals," by J. H. Vivian, S23.
P.G. & E. Evolves Device to Watch Water Levels at Hydro Plants, D26.
"Small-Plant Conversion," by A. Frank Ayres, *A33.
Glendale to Construct $1,800,000 Power Plant, Oc74.
Golden Gate International Exposition:
Art Treasures Lighted at G.G.I.E., A29.
A Treasure to Be Saved, N50.
Electrical Day at G.G.I.E., A52.
Electrical Industry Celebrated at G.G.I.E., Oc55.
Industry Day at G.G.I.E., S35.
Lighting Arrangements at G.G.I.E. Drew Greatest Favorable Comments, A24.
Pacific Gas & Electric Day at G.G.I.E., N58.
Sunshine House at G.G.I.E., A28.
Westinghouse Robot at G.G.I.E., A37.
Graybar Electric Co. to Supply Tacoma With Insulators, Oc74.
Grays Harbor:
Budget of $4,500,000 Adopted by Grays Harbor PUD, N54.
Grays Harbor Power Case Set for Late November, N54.

H

Heating:
Warming the Walls by Reverse Cycle, Oc48.
Hetch Hetchy:
S.F. Officials Ask Congress to Amend Raker Act, A60.
San Francisco Upheld in Hetch Hetchy Agreement, Oc60.
Hoover Dam:
Bureau Power & Light to Build Hoover Dam Transmission Line, J54.
Expert Says Lake Mead Causes Increase in Earthquakes, A66.
Hoover Dam Act Shelved Until Next Congress, S58.
Hoover Dam Power Bills Introduced in House, J52.
Hoover Dam Power Now Linked With So. Calif. Edison, J54.

I

Idaho Power Co.:
"A Smile in Every Home!" Excerpt from Idaho Power Co. Bulletin, J48.
Idaho Power Adopts New 40-Hour Week, D62.
Kenneth F. DeLate Winner of R. B. Marshall Award, J22.
Illuminating Engineering Society:
Convention in San Francisco, A50, S36.
IES Member Flies Own Plane to Convention, Oc66.
IES San Francisco Bay Section Meeting, D39.

K

Kelvinator and Philco Change Distribution Setup, D32.

L

Lighting:
Art Treasures — Lighted to Show Their Great Worth at G.G.I.E., A29.
Commercial Lighting-Pacific Power & Light Co., J39.
Decorative Lighting in Vancouver, B.C., D44.
Fireworks Fizzle in Fair Fog, S58.
Glare-Free Lighting Speeds the Presses, S55.
G.G.I.E. Lighting Effects Most Popular, A24.
In the Christmas Spirit—Xmas Lighting, D49.
Lambrequins—Lighting from Natural Direction at Windows, *A29.
Let's Stop at Los Angeles, *A22.
Lighting Fixtures Industries of So. Calif.—Plea to Architects, J40.
Light for Apprentices—Pac. Coast Electrical Bureau Training Classes, A28.
Lighting Systems for Tennis Courts in Seattle, Oc49.
Monthly Lighting Service Available to Utilities, Oc50.
Night Turned Into Day at Model Home, S39.
"Noiseless Light for the Movie Industry," by G. F. Maughmer, Oc41.
Northwestern Electric Co. Fluorescent Lighting Installation, S52.
Oakland Fire Department Uses Modern Floodlighting, A66.
"On With the Ball Game—After Dark," by C. J. Vacher, *Oc47.
Ornamental Tree Lighting, A24.
Portland Public Library's Lighting Installation, N46.
Science of Seeing New Aid to Better Sight in Schools, N44.
Sears, Roebuck Light a Store, D43.
"Seeing"—Western Inst. of Light & Vision, J40.
Street Lighting Improvement Program in San Francisco, D44.
Sunshine House at G.G.I.E., A28.
Survey of Lighting in Elementary Schools, by San Joaquin Power Div., P.G. & E., A28.
"They Move to Find Light," by La Velle Mitchener, *A25.
Western Inst. of Light & Vision "Seeing," J40.
Westinghouse Lamp Div. Inaugurates New Year-Round Lighting Program, A24.
"What the E.E.I. Proposes for the Code and Why?" A21.
Lighting for Safety:
Better Highway Lighting Advocated, D44.
Highway Safety-Light, D45.
Life-Saving Function of Sodium Lights, S52.
Light to Save Lives, A48.
Police Chiefs' Convention Urge Reduction of Night Accidents, N47.
Safety Lighting, Oc50.
"Safety With Light" Program Sponsored by U. S. Jr. Chamber of Commerce, N47.
San Francisco Bridge Establishes Safety Record, Oc50.
Storeman Lights His Corner, J19.
"Tragedies in Traffic," by W. P. Bear, *A19.
Lightning:
Freak Lightning Upsets Distribution Systems, Oc60.
"Lightning on the System," by W. C. Smith, D24.
L. A. Bureau of Power & Light Investigates "Current Jumpers," N52.
Los Angeles' Third Boulder Circuit, D23.

M

Meters:
Field Test—Socket and Selector on Truck-Door Panel Save Time, N27.
"Irregular Loads," by H. D. Noren, N26.
Metering, N22.
"Meter Reading Under Fire!"in San Luis Obispo, Oc60.
Peak Limiter, N27.
"Test Periods vs. Meter Accuracies," by George Searle, *N24.
"What Size?" by T. W. Erickson, N26.
M.W.D. of So. Calif. Puts Hayfield Pumping Plant Into Operation, A62.
Montana Power Co. Improves System, S68.
"More Goods for More People at Less Cost," by E. O. Shreve, *J17.
Mountain States Telephone & Telegraph Co. Announces Expansion Program, J56.

N

Nevada-California Electric Corp.:
Nevada-California Electric Corp. Safety Council Trophy, N58.
Nevada-California Electric Corp. Uses Steerable Dolly Hauling Tall Poles, D28.
Northwest Electric Light & Power Assn.:
"Costs of Unit Substations," by F. D. Beardsley, N29.
Northwest Electric Light & Power Assn. Appointments Made, A52.
Northwest Electric Light & Power Assn. Commercial Cooking Conference, D31.
"Phase Relations in the Northwest," by Elmer F. Anderson, *A34.
"Reclosing OCB's vs. Repeating Fuses," by R. S. Daniels, *J32.
Northwestern Electric Co.:
Annual All-Dealer Show—Electric Refrigerators on Parade, J24.

P

Pacific Gas & Electric Co.:
P.G. & E. Day at G.G.I.E., N58.
P.G. & E. Evolves Device to Watch Water Levels at Hydro Plants, D26.
P.G. & E. Exact Rate Reduction Figures Announced, J52.
P.G. & E. Power Franchise in S.F. Cut, A62.
P.G. & E. Offers to Buy Shasta Power, D60.
P.G. & E. Promotes Three, S72.
P.G. & E. Receives New San Francisco Franchise, Oc60.
P.G. & E. Requested to Apply for Major License for Stanislaus River Project, D60.
"Pump Testing," by C. H. Edman-San Joaquin Div., J35.
P.G. & E. to Spend $25,000,000 in 1940, D50.
Safety and Sales, J22.
San Joaquin Power Club Holds Election, D39.
"Wire Rope," by F. J. Mahr, *J23.
Pacific Power & Light Co.:
Commercial Lighting, J39.
Pacific Power & Light Co. and Yakima Win Appeal, N52.
Pacific Power & Light Co.'s Valuation Case Decided, N52.
Radio Shows—Sales Promotion, J21.
Yakima Electrical Contract With Pacific Power Questioned, D62.
Parker Dam:
"Blue Havasu"—Parker Dam Lake, A54.
Nebraskan Low Bidder on Parker Dam, Power Lines, A60.
Pacific Coast Electrical Association:
PCEA Conclaves, S35, Oc58.
PCEA Convention Golf Tourney Winners Listed, J58.
PCEA Long Beach Sessions Show Industry Is Alert, N39.
PCEA Northern Section Meeting, N41.
Pacific Coast Electrical Assn. President Makes Appointments for 1939-40, A52.
PCEA Regional Meetings Hit New Peak, D39
"Photographing Heat," by L. M. K. Boelter, *S27.
Portland General Electric Co.:
Fifty Years Celebration Held by Portland G. E., *J54.
"Reddy Kilowatt's Restaurant Review," J22.
Price Concessions:
Stop These Wars, A48.
"Two Plus Two," S48.
Provo, Utah:
City of Provo Begins New Power Plant Construction, A58.
Provo Municipal Power Plan Runs Into Snags, S58.
Public Relations:
"Educate Your Personnel," by R. Wm. Peterson, S21.
"In Defense of Front Men," by W. E. Dame, S22.
Now Watch the Women, N50.
Public Utility District News:
California State Engineer Urges Creation of PUDS, S61.
Cowlitz County PUD Case Up Before Federal Court in Washington, D60.
Hearing for Proposed Portland PUD Held by Hydro Commission, N54.
Hood River Votes Against PUD Formation, J52.
Legal Status of Lewis County PUD Doubted, D50.
Linn County, Oregon, Voters Defeat PUD Formation Plan, A58.
Oregon State Hydro Commission Kept Busy With PUD Hearings, Oc62.
Public Hearing Held on Benton County (Ore.) PUD Formation, Oc61.
PUD Condemnation Proceedings Must Be Voted Upon Says Court, Oc70.
Puget Sound Power Fights PUDS With Rate Cut, A54.
Sedro Woolley Fights Against Skagit PUD, N52.
Skagit PUD Purchases $300,000 Property, A54.
South Bend, Wash., PUD Prepared to Buy and Operate Independent Utilities, N54.
Washington PUDS Seek RFC Loans, N60.
West Coast Power Contracts With PUDS Explained, D56.
Puget Sound Power & Light Co.:
Puget Sound Old Timers Hold Dinner, D66.
Puget Sound Power & Light Co. Asks "Let's Work Together for the Public Good," S46.
Puget Sound Power & Light Co. Inspected by PUD, N54.
Re-Wiring on Time, J39.
Water Systems — Dealers Launch Selling Drive, J22.
"Pump Testing," by C. H. Edman, *J46.

R

Radio:
P.G. & E. Radio Program, Oc38.
Porch Lights Source of Radio Interference, S52.
Radio Interference Ordinance Adopted by San Francisco, Oc61.
Radio Shows—Sales Promotion, J21.
"They Specialize in Sound," *S50.
"Two-Source Service for KNX," by L. F. Hunt and J. H. Vivian, *J35.
Rate Reductions:
Albuquerque Gas & Electric Co. Lowers Lighting Rate Schedules, Oc67.
Arizona Edison Co. Cuts Electric Rates, N55.
British Columbia Electric R.R. Co. Reduces Rates in Victoria, B.C., S58.
British Columbia Electric Rate Reductions Approved, D62.
Cascade Locks, Using Bonneville Power, Reduces Rates, N55.
Coast Counties Gas & Electric Co. Reduces Rates, Oc66, N55.
Douglas, Arizona Rates Reduced, N55.
FPC Approves New Bonneville Rates, Oc68.
New P. G. and E. Rates Become Eeffective, S58.
Rate Reductions Made Throughout Western States, Oc66.
San Diego Consolidated Gas & Electric Co. Reduces Rates, Oc66.

Utah Power & Light Co. Cuts Rates, S58, Oc67.
West Coast Power Co. Reduces Rates, Oc67.
"Rodeo by Robophone," by Leonard W. Mitchell, *S54.
Rural Electrification:
A Pattern for REA, J44.
CREA Rural Electric Short Course, D47.
Egg Cooling—to Prevent Deterioration Due to Heat and Dryness, J46.
Electric Irrigated Farms Are Saving Money, S56.
"Heating Wax—Electrically," by C. W. Wildebour, *N49.
"Model Shows Farmers Electric Values," by G. H. Bliesner, *A46.
'Modern Blacksmithing," by G. H. Bliesner, N48
Ocas Island Rural Electrification Project, Oc51.
REA Activities, J56.
Rural Electrification Increasing, Oc51.
REA Sponsors Small Appliance Promotional Program, S47.
State Court Rules Against Olympia REA Regulation, A58.
"$35 Services"—REA Endeavors to Reduce Cost of Rural Equipment, Oc46.
Ultra-Violet for Gobblers Increases Farm Load, Oc51.
Utah Power & Light Co. Issue Up-to-date Loose-leaf Farm Electrification Sales Manual, Oc51.
"Warring on Weeds in Washington," by John C. Scott, *D47.
Westinghouse Electric's Booklet "Farm Help From the High Line," D47.

S

Sales Promotion:
Demonstration Washing in Turner's New Santa Ana Store, A45.
FHFA Promotion, *S52.
Future Campaigns, J24, A40, S40, Oc39, D37, G-E Promotion—"Mrs. Cinderella," S47.
Kitchen Promotion, Oc31.
Montana Power Co. "Summer Cookery" Promotion Clicks, A45.
Music Merchandised, *S46.
"Powerfax" Published by Seattle City Light, D32.
Puget Sound Power & Light Co. Schedule 1939 Fall Light Conditioning Promotion, N37.
Radio Shows—Sales Promotion, J21.
Rocky Mountain Electrical League, Dealers & Utilities Subscribe to Christmas Promotional Merchandising, D44.
Sales Programs, N38.
Sales to Music, D38.
Short Cuts for Kitchen Planning, N30.
Westinghouse Refrigeration Dept.'s "The Penny Budgeter," S46.
Seattle City Light:
Ordinance Authorizes Seattle City Light to Add 30 Ft. to Ross Dam Height, D56.
Seattle City Light Adopts Resolution for PWA Fund, N60.
Seattle City Light Betters Puget Sound Rate Reduction, A58.
Seattle City Light Linemen Receive Time and One half Overtime Pay, A58.
Seattle City Light Revenues Up, S58.
Seattle City Light Supt. Passes Two Ordinances, A64.
Seattle Plans City Light Extension, Oc60.
Selling:
"Appliance Selling—College Taught," by Chester O. Broders, J20.
Electric Appliance Society of Northern California Sales Training Conferences, D30.
"Prospect Schools" in Ogden, Utah, A45.
Safety & Sales—P.G. and E., J22.
"Sell the Difference," Electric Industry Slogan, D48.
Take 'Em Young, Teach 'Em Electric, A38.
Southern California Edison Co.:
Calif. Railroad Com. Approves Utilities Compromise, J52.
Hoover Dam Power Now Linked With So. Calif. Edison, J54.
Promotion Dividends, J40.
Southern California Edison Promotes Five in Operating Department, N66.
Southern Calif. Edison Puts Substations into Operation, S70.
Southern California Edison Co. Voted New Franchise at Visalia, Calif., N58.
So. Calif. Edison Wins National Ad Prize, J48.
"Sterilizing by Ultraviolet," by W. C. McHenry, *J41.

T

Tacoma City Light to Get Government Contracts, Oc74.
Taxes:
Sales Tax Ruling, J22.
Taxes Raise the Roof, N20.
"Tragedies In Traffic," by W. P. Bear, *A19.

U

Utilities:
B. C. Public Utilities Commission Begins Property Appraisals, A61.
British Power System Lauded, N60.
California Grange Master Urges Support of Public Power, D62.
California-Oregon Power to Build New Power Line to Alturas, D62.
Calif. Railroad Commission Approves Utilities Compromise, J52.
Coast Utilities Help Army Build Tight Aircraft Defense, S62.
Federal Survey Covers Western Utilities, A62.
Gallup, N. M., Begins Operation of New Electric Property, D62.
Grand Coulee Power Available Next Year, D50.
Municipal Power Interests Organized in Utah, D60.
New Station in Imperial Valley, Oc76.
Ogden Voters to Pass on $3,500,000 Bond Issue, N58.
Turbines on Flathead River, Mont. Project Now in Operation, N58.
Utah Voters Defeat Municipal Power Plans, D60.
Washington Professor Presents Proposed Power Schedules, N58.
Washington State Utility Regulation Opposed, N54.
"We Have Had to Sell"—TVA, S49.
"Yardstick" Competition—Government vs. Private Enterprise, D49.

V

Ventura Votes Down Municipal Ownership, Oc66, D62.

W

Washington Counties Keep State Court Humming, J48, A54.
Washington Water Power Co.:
Washington Water Power Co.'s Construction Program Attacked by REA, N52.
Washington Water Power Co. Dealers Report Sales Increase, Oc38.
Washington Water Power Co. Declares New Rural Line Construction Policy, Oc60.
Washington Water Power Declares Rate Reduction, A58.
Washington Water Power Co. Issues Booklet "A Half Century of Continuous Service," S70.
Washington Water Power Co. Provides Home Service Advisors, S70.
Wash. Water Power Co. to Construct Power Lines, A66.
Washington Water Power Co. to Spend $1,500,000 on Distributing Systems, A62.
Westinghouse Elec. & Mfg. Co.:
Appoints Dostal New Pacific Coast Sales Manager, S72.
Westinghouse Electric's Booklet "Farm Help from the High Line," D47.
Westinghouse Lamp Co. "Caravan of Light" Tour, J22.
Window Display:
Display Clinic, A28.
Duplicate Cash Awards by Edison G-E Appliance Co. in Winning Window Contest at Modern Kitchen Bureau's, S47.
Window Display Contest, D38.
Window Displays for Smaller Electrical Contractors, N45.
Window Winners—Electric Appliance Society of No. Calif., J21.
"Wire Rope," by F. J. Mahr, *J23.
Wiring:
Adequate Wiring Exhibit at National Homes Show in Salt Lake City, A24.
Adequate Wiring Installed in Five Puget Sound Homes, Oc49.
Adequate Wiring—National Housing Exposition in Seattle, J38.
Adequate Wiring Bureau Promotes Better Wiring in Spokane Model Homes, Oc49.
"Covered Neutral Cable Helps Sell Adequate Home Wiring." Published by Edison Electric Institute, S52.
"Inform the Journeyman," by George Barker, *D42.
"Leakage," by R. L. Booth, *A24.
License Fees for Temporary Installations in Seattle, S52.
Los Angeles Electric Code Revised, N47.
National Adequate Wiring Bureau Conference in San Francisco, A51.
Planning Service—Idaho Power Furnishes it on Kitchens & Wiring, A28.
Promotion Dividends—So. Calif. Edison & L. A. Bureau of Power & Light, J40.
Rewiring on Time—Puget Sound Power and Light, J39.
"Re-Wiring Opportunity"—Adequate Wiring Bureau Conference, S49.
Rocky Mt. E. L. Pamphlet on Adequate Wiring, J40.
Seattle Adequate Wiring Bureau Presents New Houses, N45.
Seattle AWB Promotion Draws National Praise, D44.
Three-Ammeter Method, Oc49.
"Wiring Is Accelerating"—Regional Adequate Wiring Bureau Conference, S33.
Wiring School for Architects in Pasadena Conducted by C. A. Rowley, J40.
Wiring Specifications—Spokane AWB, J40.
Wiring Survey—Salt Lake City, J39.
Wyvernwood Los Angeles Development has Many Modern Electric Units, Oc50.
Woolwine-Norris Corp. Joins with Thermador Electric Mfg., J56.
War:
"Business Stands Against War," by James H. McGraw, Jr., N51.
If America Fights—Socialization Hazard, Oc53.
World War II, Oc52.

Y

"Youth Must Learn"—Revolution in Electrical Industry, S48.

Authors' Index

A

Anderson, Elmer F., "Phase Relations in the Northwest" *A35
Ayres, A. F., "Automatic Start" N28
Ayres, A. Frank, "Small-Plant Conversion" *A33

B

Barker, George, "Inform the Journeyman" .....*D42..
Bear, W. P., "Tragedies in Traffic".....*A19
Beardsley, F. G., "Costs of Unit Substations" N29
Blakeslee, T. M., "Controller Facilitates Testing" *A34
Bliesner, G. H., "Model Shows Farmers Electric Values" *A46
Bliesner, G. H., "Modern Blacksmithing"..N48
Boelter, L. M. K., "Photographing Heat"..*S27
Booth, R. L., "Leakage" *A24
Broders, Chester O., "Appliance Selling—College Taught" *J20

D

Dame, W. E., "In Defense of Front Men"..S22
Daniels, R. S., "Reclosing OCB's vs. Repeating Fuses" *J32
Douglass, Shirley, "What Women Think About Appliances" *N32

E

Edman, C. H.—"Pump Testing".....*J46
Erickson, T. W., "What Size?" N26

G

Green, Sydney W., "Movable Kitchens" ..*S45

H

Hunt, L. F., and Vivian, J. H., "Two-Source Service for KNX" *J35

Mc

McHenry, W. C.—"Sterilizing by Ultraviolet" *J41

M

Maughmer, G. F., "Noiseless Light for the Movie Industry" *Oc41
Mahr, F. J.—"Wire Rope".....*J23
Mitchell, Leonard W., "Rodeo by Robophone" *S54
Mitchener, LaVelle, "They Move to Find Light" as told to Walter Heston.....*A25
Moody, Burdett, "Consider the Electric Range" *Oc29

N

Noren, H. D., "Irregular Loads" N26

P

Peterson, R. Wm., "Educate Your Personnel" S21

R

Rhine, C. P., "Hydro Maintenance" Part I *S29
Rhine, C. P., "Hydro Maintenance" Part II *Oc43
Roberts, J. F., "Capacitors Defer $135,000 Investment in Synchronous Unit" *Oc42
Rowley, M. A., "What's New? What's Up?" *D21

S

Sanford, R. V., "Capacitors Switched by Automatic Unit" *Oc40
Scott, John C., "Warring on Weeds in Washington" *D47
Searle, George, "Test Periods vs. Meter Accuracies" *N24
Shipek, A., "How Package Subs Are Used" *A30
Shreve, E. O.—"More Goods for More People at Less Cost" *J17
Smith, W. C., "Lightning on the System" ..D24

V

Vacher, C. J., "On With the Ball Game—After Dark" *Oc47
Vivian, J. H., "Machine Protection and the Practice of Grounding Neutrals" *S23
Vivian, J. H., and L. F. Hunt, "Two-Source Service for KNX" *J35

W

Wildebour, C. W., "Heating Wax—Electrically" *N49

Obituary

A

Ashbrook, Roy B.....S74

B

Beekman, Henry W.....J59
Blake, Frank E.....J59
Braun, Charles E.....N66

C

Campbell, Thompson Adams.....J59

E

Ellett, George.....S74

G

Gianini, Leo G.....A29

N

Nunn, Paul N.....D70

R

Rosenberg, Barney.....S74

S

St. John, Robert.....D70
Saville, William.....S74

T

Twelves, J. W.....S74

V

Vanderpoel, W. K.....N66

Personals

A

Anderson, A. A.....S47
Andrews, Frank.....N66

B

Bachman, Elwood.....S74, Oc81
Banks, Frank A.....N56
Barstow, Frank.....D70
Batley, W. R.....J58
Beck, R. W.....D66
Benson, C. R.....S72
Bersano, Felix.....A74
Biggs, Clayton E.....J58
Bishop, G. Haven.....J58
Black, James B.....S72
Bloch, Ivan.....S64
Boyles, R. G.....N66
Branson, Lem V.....S74
Bray, John.....D66
Brownlea, Bruce.....J59

C

Cameron, J. M.....Oc38
Carroll, H. N.....Oc81
Carson, Joseph K.....A61
Carson, J. P.....Oc81
Cavner, C. M.....N66
Chamberlin, D. U.....N43
Christine, W. S.....D66
Churchill, Paul K.....J58
Clark, R. L.....S72
Cleaver, O. P.....Oc81
Cochran, G. C.....S47
Coe, R. N.....N66
Coffin, L. R.....D66
Coker, F. M.....D68
Colter, Fred T.....D70
Colwell, James I.....Oc79
Conover, A. W.....J58
Conover, J. Henry.....S72
Cordiner, Ralph J.....A71
Cowling, Edward W., Jr.....N56
Creim, Ben W.....Oc68
Crotty, Joseph M.....D66

D

Delzell, Thomas W.....S72
Dennis, Harry W.....J58
Dick, William.....D66
Doerr, O. R.....S72
Dolan, W. P.....J59
Dostal, Charles A.....S72
Draper, Claude L.....A62
Driscoll, Jerry.....J58
Dunbar, Willis F.....A69
Duncan, L. M.....N66
Dyr, L. L.....J58

E

Elder, L. R.....A61
Etienne, N. J.....J59

F

Fall, Fritz.....N38
Firth, G. W.....J58
Frost, A. M.....Oc81

G

Garrison, Fred.....S72
Griffith, Franklin T.....S72
Grob, Edward H.....N66

H

Hagey, Chas.....J58
Haines, Dr. Charles G.....J5
Halliday, Urban N.....N66
Hamilton, Fred G.....J5, N66
Hanlon, Lloyd R.....S74
Hanson, Fred.....N39
Harrison, Ward.....Oc50
Haugh, B. D.....N66
Haybarker, V. H.....A61
Hazleton, S. H.....D68
Heinz, Bert.....N38
Henderson, Dwight F.....Oc82
Himrod, William B.....J5
Hinson, N. B.....N39
Holcomb, W. H.....N6
Howell, Walter D.....S72
Hyatt, Edward.....S61

J

James, Charles J.....J5
Jerauld, R. E.....S72
Jones, Mrs. R. V.....Oc39

K

Kaub, Herb.....N64
Kearney, James R.....A71
Kelley, Joseph.....N64
Kenney, R. C.....A61
Ketch, J. M.....Oc50
King, William G.....D66
Krivanek, Josef.....D70

L

Lake, J. H.....A61
Lauth, E. H.....Oc66
Lee, Gerald P.....Oc81
Loring, Robert.....J59
Luther, Glen H.....N66

Mc

McDaniel, H. C.....A74
McDonald, Robert F.....N64
McGonigle, D. J.....J59
McLaughlin, Frank.....D66
McNinch, Frank P.....A62

M

Magnussen, Prof. Carl.....N58
Mainwaring, W. C.....Oc79
Mangold, A. O.....Oc79
Markee, E. P.....S74
Marlett, D. L.....Oc68
Marple, Warren H.....Oc68
Marshall, William R.....S72
Maughmer, G. F.....S72
May, Walter W. R.....A72
Montague, Tom.....D66
Moreland, Watt L.....S72
Morgan, C. W.....Oc82
Mullen, Arthur J.....N64
Mullendore, W. C.....N39
Mulvany, Fred A.....Oc81
Murphy, F. H.....A61, A74

N

Nance, J. J.....Oc82
Naylor, F. U.....Oc81
Newton, L. F.....A72
Newton, Norma.....N43
Nicoll, Alfred H.....Oc81

O

Olson, Harold A.....A74
Osborne, A. M.....D70

P

Park, W. H.....S72
Patterson, S. K.....J59
Peacock, Herb.....D70
Pearson, Claude.....J59
Pechette, Louis N.....N64
Pinson, Frank R.....N66
Plumb, Dr. H. T.....A72, Oc81
Porter, J. C.....S72
Pride, A. W.....D68

Q

Quimby, Larry.....D66
Quinn, John.....D66

R

Reed, Phillip D.....D68
Reynolds, B. W.....Oc81
Riner, John A.....J59
Robins, Col. Thomas M.....J59
Robinson, W. H., Jr.....S74
Rosemond, J. Stuart.....N64

S

Scarfe, Stanley W.....S72
Scheyer, Clarence.....N38
Schuler, H. S.....A72
Scott, L. M.....S72
Seavy, Clyde L.....A62
Sewell, H. A.....D68
Sickler, D. J.....N56
Smith, Glen H.....Oc82
Sparrow, H. D.....Oc32
Spickard, L. O.....D66
Staats, Ernie.....D68
Stacey, L. B.....N43
Supplee, Tom G.....J58
Swanson, Walter.....D70
Sward, C. W.....N66
Swope, Gerard.....D68

T

Tenney, J. M.....S74
Thiel, William.....Oc82
Thompson, A. V.....Oc82
Thompson, L. A.....D66

U

Urquhart, Bill.....J59

V

Vaughn, Harold L.....N66

W

Wagner, Dr. C. F.....Oc81
Walker, Harry.....S74
Wells, Joe R.....D68
Welch, O'Farrel "Tex".....D70
Williams, George H.....J59
Willis, William.....D6
Wilson, Charles E.....D68
Wilson, Kenneth.....S74
Wilson, L. B.....A74
Wingfield, H. V.....Oc70

Y

Young, Owen D.....D68

Profiles

Bettinger, C. S.....A76
Brown, Harry Boyd.....A76
Brownlea, Bruce.....S76
Butcher, Roy.....D72

C

Carson, J. P.....N68
Crane, R. E.....A76
Cranston, W. E.....A76

D

Day, William P.....Oc84
Dickenson, Dorothy.....J60
Dickerson, A. F.....Oc84
Dostal, Charles A.....S76
Doutrick, L. P.....D72

E

Elliott, Art.....J60

F

Fenton, Fred.....S76
Ferris, H. E.....J60
Fogwell, Harry H.....A76

G

Geen, A. L.....S76

H

Hammond, Jack F.....D39
Harrigan, F. H.....J60
Haslam, James A.....D72
Hiester, E. C.....S76
Hockensmith, F. L.....J60
Hollingworth, W. C.....D72
Holterman, R. J.....S76
Howell, Walter D.....Oc84

K

Kirkwood, G. B.....A76
Knopf, Kenneth.....S76

L

Lewis, John A.....Oc84
L'Hommedieu, William.....S76

Mc

McAllister, J. F.....D72
McClellan, L. N.....D72
McDonald, Robert.....S76
McDonough, R. E.....Oc84
McMicken, A. C.....J60

M

Madison, George.....J60
Miller, Allen.....D72
Mills, Frank.....S76
Milsap, Ralph.....J60
Moody, Burdette.....J60

N

Noack, Harold.....D72
Nolan, Charles E.....J60

P

Platt, J. C.....N68

R

Rogerson, Ken.....D72
Rosenberg, T. L.....S76

S

Scaife, Howard L.....N68
Schanuel, Art.....N68
Scheel, Fred.....D72
Schuler, H. S. "Bud".....S76
Schwager, A. C.....A76
Skinner, J. M.....A76
Smallcomb, Clare.....A76
Stewart, D. B.....D72
Strong, Elias.....D72
Sweyd, Mike.....S76

T

Thrane, C. H.....J60
Tiderman, Harry.....S76

W

Williams, Clyde.....S76
Wolff, W. H.....S76